JOURNAL OF ORGANOMETALLIC CHEMISTRY VOLUME 454, NUMBERS 1–2, JULY 27, 1993

Contents

Regular Papers

Metalcarbonylates of lanthanides. Unexpected formation of the trinuclear cluster $[Na(DME)_3]_2[W_3(CO)_{14}]$
I.P. Beletskaya, A.Z. Voskoboynikov, E.B. Chuklanova, A.I. Gusev and A.V. Kisin (Moscow, Russian Federation) (Rec'd October 28, 1992) 1

Synthesis and molecular structure of $AlMe[O{=}C(OMe)C_6H_4\text{-}o\text{-}O]_2$. The first structurally characterized five-coordinated simple alkylaluminium chelate complex
J. Lewiński, J. Zachara, B. Mańk and S. Pasynkiewicz (Warsaw, Poland) (Rec'd January 13, 1993) 5

Dialan-Radikalanionen $[R_2Al{-}AlR_2]^{\cdot -}$
W. Uhl, A. Vester (Oldenburg, Deutschland), W. Kaim und J. Poppe (Stuttgart, Deutschland) (Eing. den 26. November 1992) 9

AM1 and PM3 semiempirical molecular orbital study of silatranes. III. 1-chlorosilatrane
G.I. Csonka and P. Hencsei (Budapest, Hungary) (Rec'd December 2, 1992) 15

Synthesis and crystal structure of *para*-substituted diphenylsilanes of interest for nonlinear optics: sulfonyl acceptor groups
D. Hissink, P.F. Van Hutten, G. Hadziioannou and F. Van Bolhuis (Groningen, Netherlands) (Rec'd November 25, 1992) 25

Siliciumverbindungen mit starken intramolekularen sterischen Wechselwirkungen. L. Reaktionen von Silylenen und Disilenen mit 2,2′-Bipyridyl, Pyridin-2-aldiminen und α-Ketoiminen: Cycloadditionen *versus* C–H-Insertion
M. Weidenbruch, H. Piel, A. Lesch (Oldenburg, Deutschland), K. Peters und H.G. Von Schnering (Stuttgart, Deutschland) (Eingegangen den 10. Februar 1993) 35

Catalysis of hydrosilylation. XXIII. Effect of substituents at silicon on unusual hydrosilylation of vinylsilanes catalysed by nickel acetylacetonate
B. Marciniec and H. Maciejewski (Poznań, Poland) (Rec'd December 9, 1992) 45

An easy route to 1-germaindenes via a transmetallation zirconium–germanium reaction
A. Kanj, P. Meunier, B. Gautheron (Dijon, France), J. Dubac (Toulouse, France) and J.-C. Daran (Paris, France) (Rec'd October 23, 1992) 51

Tin(IV) and organotin(IV) complexes with heterocyclic β-diketonates. I. Bis-[4(1-phenyl-3-methylpyrazol-5-one)]-dioxoalkane derivatives
C. Pettinari, F. Marchetti, A. Cingolani, D. Leonesi, G. Gioia Lobbia and A. Lorenzotti (Camerino, Italy) (Rec'd July 29, 1992) 59

A complex salt formed in reactions of $^nBuSnCl_3$ with 1-(2-methyl-2,3-dihydrobenzothiazol-2-yl)-2-ketones
S.-B. Teo, S.-G. Teoh, R.C. Okechukwu and H.-K. Fun (Penang, Malaysia) (Rec'd November 4, 1992) 67

The structures of the adducts formed from organotin moieties and 1-[(4-methoxyphenylimino)methyl]-2-naphthol. Crystal structure of chloro-trimethyl[1-[(4-methoxyphenylimino)methyl]-2-naphthol]tin(IV): $Me_3SnCl \cdot [HOC_{10}H_6CH{:}NC_6H_4OCH_3]$
S.-G. Teoh, S.-B. Teo, G.-Y. Yeap, H.-K. Fun (Penang, Malaysia) and P.J. Smith (Uxbridge, UK) (Rec'd December 17, 1992) 73

Übergangsmetall-Silyl-Komplexe. XLVII. Deprotonierung der elektronenreichen Hydrido-Silyl- Komplexe $Fe(CO)_2(dppe)(H)(SiR_3)$ und $Fe(CO)(dppe)H_3(SiR_3)$; Darstellung der Komplexe $Fe(CO)_2(dppe)(EMe_3)(SiR_3)$ und $Fe(CO)(dppe)H_2(EMe_3)(SiR_3)$ (E = Sn, Pb) aus den korrespondierenden anionischen Komplexen
U. Schubert, S. Gilbert und M. Knorr (Würzburg, Deutschland) (Eingegangen den 13. November 1992) 79

Enantioselektive Katalyse. LXXXI. Optisch aktive Zweischalenphosphine
H. Brunner, J. Fürst und J. Ziegler (Regensburg, Deutschland) (Eingegangen den 27. November 1992) 87

Asymmetrische Katalyse. III. Synthese, spektroskopische Untersuchungen und katalytische Wirkung eines neuen chiralen Phosphanliganden
A. Tillack, M. Michalik (Rostock, Deutschland), D. Fenske und H. Goesmann (Karlsruhe, Deutschland) (Eingegangen den 10. Dezember 1992) 95

On tertiary stibine. I. Reaction of ω-bromoacetophenone with aldehydes mediated by diphenylantimonyorganometallic reagents
L.-J. Zhang and Y.-Z. Huang (Shanghai, China) (Rec'd September 5, 1992; in rev'd form December 18, 1992) 101

Synthesis and characterization of ansa-dimethylsilylbiscyclopentadienyl titanium(II) complexes. Crystal structure of $[Ti\{Me_2Si(C_5H_4)_2\}\{CN(2,6\text{-}Me_2C_6H_3)\}_2]$
T. Cuenca, R. Gómez, P. Gómez-Sal and P. Royo (Madrid, Spain) (Rec'd December 3, 1992) 105

Preparation and structure of bis(η^5-methylcyclopentadienyl)titanaindane
G. Erker, U. Korek (Münster, Germany) and A.L. Rheingold (Newark, DE, USA) (Rec'd December 14, 1992) 113

Von $Cp^+{}_2Nb(\eta^2\text{-}S_2)H$ zu $Cp^+{}_3Nb_3S_{12}$: Reaktivitätsstudien an Niobocensulfiden
H. Brunner, G. Gehart, W. Meier, J. Wachter (Regensburg, Deutschland) und B. Nuber (Heidelberg, Deutschland) (Eing. den 30. November 1992) 117

New metallocene complexes of Nb and Ta with functionalized diazoalkanes
D.A. Lemenovskii, M. Putala, G.I. Nikonov, N.B. Kazennova, D.S. Yufit and Y.T. Struchkov (Moscow, Russian Federation) (Rec'd December 2, 1992) 123

α-Addition von Aminen, Iminen und Hydrazinen an Allenyliden-Komplexe — Bildung von Carben-, Azetidinyliden- und Nitril-Komplexen
H. Fischer, G. Roth, D. Reindl und C. Troll (Konstanz, Deutschland) (Eing. den 8. Dezember 1992) 133

Dimethylencyclobuten als Komplexligand. Synthese und Struktur von Tricarbonyl(η^6-diisopropylidencyclobuten)chrom und Bis(η^2-dimethylencyclobuten)(η^5-indenyl)rhodium
D. Rau und U. Behrens (Hamburg, Deutschland) (Eing. den 30. November 1992) 151

Organometallic chemistry of diphosphazanes. VIII. Synthesis, spectroscopic studies and crystal structure of *fac*-[$Mo(CO)_3$(MeCN){$Ph_2PN(^iPr)P(Ph)(DMP)$}], and its reactions with tertiary phosphines
R.P.K. Babu, S.S. Krishnamurthy and M. Nethaji (Bangalore, India) (Rec'd August 7, 1992) 157

Photoinduzierte Desalkylierungsreaktionen an Indenyl- und Fluorenyl-funktionalisierten Cyclopentadienyltricarbonyl-Methylkomplexen des Molybdäns und Wolframs. Molekülstrukturen von ($\eta^5:\eta^1$-$C_5H_4CMe_2C_9H_6$)$Mo(CO)_3$, ($\eta^5:\eta^1$-$C_5H_4CMe_2C_{13}H_8$)$W(CO)_3$ und [(η^5-$C_5H_4(CH_2)_3C_{13}H_9$)$W(CO)_3$]$_2$
H.G. Alt, J.S. Han (Bayreuth, Deutschland) und R.D. Rogers (DeKalb, IL, USA) (Eing. den 12. November 1992) 165

Syntheses and reactions of metal carbonyl complexes containing the trimethylsilylmethyl ligand; CO insertion reactions assisted by the trimethylsilylmethyl groups
J.-D. Chen, C.-K. Wu, I.-Y. Wu, B.-C. Huang, Y.-C. Lin and Y. Wang (Tapei, Taiwan, ROC) (Rec'd October 9, 1992; in rev'd form December 18, 1992) 173

Synthese und Struktur zweikerniger Cyclopentadienyltricarbonylmangan-Komplexe vom Typ $(CO)_3Mn[(\eta^5\text{-}C_5H_4)\text{–}X\text{–}(\eta^5\text{-}C_5H_4)]Mn(CO)_3$
S. Pitter, G. Huttner, O. Walter und L. Zsolnai (Heidelberg, Deutschland) (Eing. den 23. November 1992) 183

Photochemische Reaktionen von Übergangsmetall-Organyl-Komplexen mit Olefinen. VII. Photoreaktionen von Tricarbonyl-η^5-dienylmangan-Komplexen mit 6,6-Dimethylfulven
C.G. Kreiter und K. Lehr (Kaiserslautern, Deutschland) (Eing. den 3. Dezember 1992) 199

Substituted metal carbonyls. XXII. Synthesis of 1,1′-bis(diphenylphosphino)ferrocene-bridged complexes with two heterometallic Au–M (M = Mn and Re) bonds
P.M.N. Low, Y.K. Yan, H.S.O. Chan and T.S.A. Hor (Kent Ridge, Singapore) (Rec'd November 20, 1992; in rev'd form December 25, 1992) 205

Synthesis of the pseudohalide-dinitrogen complexes *trans*-[$ReX(N_2)(Ph_2PCH_2CH_2PPh_2)_2$] (X = NCS, NCO or N_3) and crystal structures of the isothiocyanate and azide complexes
Y. Wang, J.J.R. Fraústo Da Silva, A.J.L. Pombeiro (Lisbon, Portugal), M.A. Pellinghelli and A. Tiripicchio (Parma, Italy) (Rec'd December 11, 1992) 211

The use of high reaction pressures in the synthesis of acetylide complexes of iron
L.D. Field and A.V. George (Sydney, N.S.W., Australia) (Rec'd December 1, 1992) 217

Studies on binuclear complexes. Synthesis and catalytic behaviour of Fe–M complexes (M = Mo, Ni, Rh, Cu, Hg) using *trans*-$Fe(Ph_2Ppy)_2(CO)_3$ [Ph_2Ppy = 2-(diphenylphosphino)pyridine] as a neutral tridentate ligand. Molecular structure of $FeHg(\mu\text{-}Ph_2Ppy)_2(CO)_3(SCN)_2$
Z.-Z. Zhang, H.-P. Xi, W.-J. Zhao, K.-Y. Jiang, R.-J. Wang, H.-G. Wang (Tianjin, China) and Y. Wu (Beijing, China) (Rec'd October 23, 1992; in rev'd form December 18, 1992) 221

Synthesis and molecular structures of $S_2Fe_2(CO)_6$ heterometallic derivatives, containing $(Ph_3P)_2Pt$ or CpRe(CO) fragments
A.A. Pasynskii, B.I. Kolobkov, S.E. Nefedov, I.L. Eremenko, E.S. Koltun, A.I. Yanovsky and Y.T. Struchkov (Moscow, Russian Federation) (Rec'd November 11, 1992) 229

Paramagnetic organometallics formed by *o*-metallation of phenolic Schiff bases by ruthenium(III)
P. Ghosh, A. Pramanik, N. Bag, G.K. Lahiri and A. Chakravorty (Calcutta, India) (Rec'd November 17, 1992) 237

Stabile Allyl(hydrido)osmium-Komplexe ohne Olefin- und Arenliganden
C. Schlünken und H. Werner (Würzburg, Deutschland) (Eing. den 4. Dezember 1992) 243

Reaktionen der Aren(carbonyl)ruthenium-Komplexe [$C_6Me_6Ru(CO)Cl_2$] und [(Mes)$Ru(CO)Cl_2$] mit Alkyl- und Allyl-Grignardreagenzien. Die Kristall- und Molekülstruktur von {[η^5-$C_6Me_6(CH_2CH{=}CH_2)$]Ru(*exo*-η^3-C_3H_5)(CO)}
H. Werner, G. Brauers und O. Nürnberg (Würzburg, Deutschland) (Eing. den 4. Dezember 1992) 247

Mehrfachbindungen zwischen Hauptgruppenelementen und Übergangsmetallen. CXVI. Tetrakis(2-methylpropyl)oxoosmium(VI), ein thermisch stabiles, sterisch überladenes d^2-Alkylmetalloxid mit β-ständigem Wasserstoff
W.A. Herrmann, S.J. Eder und W. Scherer (München, Deutschland) (Eing. den 11. November 1992) 257

Preparation of $[Os_3(CO)_{11}]^{2-}$ and its reactions with $Os_3(CO)_{12}$; structures of [Et_4N][$HOs_3(CO)_{11}$] and $H_2Os_4(CO)_{13}$
J.A. Krause, U. Siriwardane, T.A. Salupo, J.R. Wermer, D.W. Knoeppel and S.G. Shore (Columbus, OH, USA) (Rec'd July 30, 1992; in rev'd form November 30, 1992) 263

Bidentate ligand substitution in $PhCCo_3(CO)_9$. Synthesis, molecular structure, and redox reactivity of $PhCCo_3(CO)_7$(*cis*-$Ph_2PCH{=}CHPPh_2$)
K. Yang, S.G. Bott and M.G. Richmond (Denton, TX, USA) (Rec'd September 25, 1992; in rev'd form November 30, 1992) 273

Syntheses of nitrogen heterocycles by means of amine-directed carbonylation and hydrocarbonylation
Z. Zhang and I. Ojima (Stony Brook, NY, USA) (Rec'd October 6, 1992; in rev'd form January 4, 1993) 281

Preliminary Communications

A titanium-magnesium complex containing perpendicularly bridging bis(trimethylsilyl)acetylene ligands: [(η^5-C_5H_5)Ti][(η^5-C_5H_5)Mg][μ-$\eta^2:\eta^2$-$C_2(SiMe_3)_2$]$_2$
V. Varga, K. Mach (Prague, Czech Republic), G. Schmid and U. Thewalt (Ulm, Germany) (Rec'd February 5, 1993, ... C1

Formation of [$cp_2Zr(C{\equiv}C\text{–}SiMe_3)_2$] from the reaction of zirconocene with trimethylsilylacetylene
N. Metzler and H. Nöth (München, Germany) (Rec'd March 1, 1993) C5

Aminocarbyne coupling reactions leading to the bis(amino)acetylene complexes *trans*-[$MF(\eta^2$-MeHNC≡CNHMe)$(Ph_2PCH_2CH_2PPh_2)_2$][BF_4] (M = Mo or W) and cleavage of the acetylenic-triple bond. A reformulation, and X-ray structure of the Mo compound
J.J.R. Fraústo da Silva (Lisbon, Portugal), M.A. Pellinghelli (Parma, Italy), A.J.L. Pombeiro (Lisbon, Portugal), R.L. Richards (Brighton, UK), A. Tiripicchio (Parma, Italy) and Y. Wang (Lisbon, Portugal) (Rec'd February 22, 1993) C8

The use of $[(C_6H_7)Fe(CO)_3]^+$ as a recoverable protecting group in peptide synthesis
S. Fu, J.A. Carver and L.A.P. Kane-Maguire (Wollongong, N.S.W., Australia) (Rec'd March 10, 1993) C11
Regiospecific Cp^*Ru^+ mediated codimerization of conjugated dienes with non-conjugated 1,5-dienes and its application to catalytic cooligomerization
K. Masuda, H. Ohkita, S. Kurumatani and K. Itoh (Toyohashi, Japan) (Rec'd January 8, 1993; in rev'd form February 12, 1993) C13
A ruthenium dihydrogen complex as intermediate in the synthesis of $[RuH(CO)_2(MeCO_2)(P^nBu_3)_2]$ from $[Ru(H)2(CO)_2(P^nBu_3)_2]$
P. Frediani, A. Salvini, M. Bianchi and F. Piacenti (Firenze, Italy) (Rec'd January 20, 1993) C17
Übergangsmetallallyle. VII. Synthese von η^3-Allylnickel- und η^3-Allylpalladiumkomplexen mit Trifluoracetatgruppen als Brückenliganden
R. Goddard, C. Krüger, R. Mynott, M. Neumann und G. Wilke (Mülheim an der Ruhr, Deutschland) (Eing. den 5. März 1993) C20

Book Review C26

Author Index C27

Subject Index C29